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#### NOTICE OF ALLOWANCE AND FEE(S) DUE

26200 7590 07/01/2009

FISH & RICHARDSON P.C. P.O BOX 1022

MINNEAPOLIS, MN 55440-1022

EXAMINER CHEN, TSE W

ART UNIT PAPER NUMBER

2116 DATE MAILED: 07/01/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/631,327	07/30/2003	Eitan Rosen	MP0280/13361-054001	1395			
TITLE OF INVENTION: DDR INTERFACE BUS CONTROL							

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	10/01/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NOT THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THE APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further e indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed off ions.	or tran	smitting the ISSU Patent, advance or in Block 1, by (a	TE FEE and PUBLIC ders and notification i) specifying a new o					ould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying pagers. Each additional pager, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
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APPLICATION NO.	FILING DATE			FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/631,327	07/30/2003			Eitan Rosen			MP0	280/13361-054001	1395
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nonprovisional	NO		\$1510	\$0		\$0		\$1510	10/01/2009
EXAM	INER		ART UNIT	CLASS-SUBCLASS	S				
CHEN,	TSE W		2116	713-500000					
"Fee Address" indi PTO/SB/47; Rev 03-0: Number is required.  3. ASSIGNEE NAME AT	ess an assignee is ident in 37 CFR 3.II. Comp	" Indica ned. Use A TO B	ation form e of a Customer E PRINTED ON	or agents OR, alte (2) the name of a registered attorney 2 registered patent listed, no name wi  THE PATENT (print of	single y or a t attor ill be or typ the pa	e firm (having as a agent) and the name meys or agents. If a printed. te) atent. If an assigna assignment.	memb es of u no nam ee is id	er a 2	cument has been filed for
Please check the appropri	ate assignee category or	catego	ories (will not be pr	inted on the patent):		Individual Co	rporati	on or other private gro	up entity 🚨 Government
Advance Order - #	o small entity discount p		ed)	A check is enclosed.  Payment by cred The Director is he	sed. it can ereby	d. Form PTO-2038	is atta	required fee(s), any def	
	SMALL ENTITY state	ıs. See	37 CFR 1.27.					ITTY status. See 37 CF	
NOTE: The Issue Fee and interest as shown by the r	I Publication Fee (if req ecords of the United Sta	uired) v ites Pat	will not be accepted ent and Trademark	from anyone other t Office.	han ti	he applicant; a regi	stered :	attorney or agent; or th	e assignee or other party in
Authorized Signature						Date			
Typed or printed name					Registration N				
This collection of informs an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V. Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	FR 1.3 U.S.C. USPT rden, sl O NOT	11. The informatic . 122 and 37 CFR O. Time will vary hould be sent to the SEND FEES OR	on is required to obtain 1.14. This collection depending upon the Echief Information COMPLETED FORM	n or r is est indiv Office IS TO	etain a benefit by the imated to take 12 r idual case. Any co r, U.S. Patent and D THIS ADDRESS	he publ minutes mment Traden i. SENI	ic which is to file (and to complete, including s on the amount of tin nark Office, U.S. Depa D TO: Commissioner f	by the USPTO to process) g gathering, preparing, and the you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450,

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## UNITED STATES PATENT AND TRADEMARK OFFICE

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FISH & RICHARDSON P.C.			CHEN, TSE W			
P.O BOX 1022		ART UNIT	PAPER NUMBER			
MINNEAPOLIS	, MN 55440-1022	2116				
		DATE MAILED: 07/01/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 592 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 592 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Application No. Applicant(s) 10/631 327 ROSEN, EITAN Notice of Allowability Examiner Art Unit TSE CHEN 2116 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to the communication filed on March 26, 2009. The allowed claim(s) is/are 1-5,7-15,23-27 and 29-37. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) $\square$ All b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other . /Tse Chen/

U.S. Patent and Trademark Office

Primary Examiner, Art Unit 2116

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### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or
additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the
payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant Attorney Mark Kirkland on June 17, 2009.

The application has been amended as follows:

- Claim 1, replace with -- A circuit, comprising: a clock transmitter in communication with a clock bus, the clock transmitter to transmit a clock signal on the clock bus; a clock receiver in communication with the clock bus, the clock receiver to receive a clock signal on the clock bus; and a driver in communication with the clock bus, the driver to drive and maintain a voltage of the clock bus to a first voltage level while the clock transmitter is not transmitting a clock signal on the clock bus and the clock receiver is not receiving a clock signal on the clock bus; the circuit further including enabling circuitry in communication with the driver, the enabling circuitry to enable the driver when the clock transmitter is not transmitting a clock signal on the clock bus and the clock receiver is not receiving a clock signal on the clock bus. --.
- Cancel claim 6.
- Claims 7-9, change "claim 6" to -- claim 1 --.

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- Claim 23, replace with A circuit, comprising: a clock signal transmission means in communication with a clock bus, the clock signal transmission means for transmitting a clock signal on the clock bus; a clock signal receiving means in communication with the clock bus, the clock signal receiving means for receiving a clock signal on the clock bus; and a voltage driving means in communication with the clock bus, the voltage driving means for driving and maintaining a voltage of the clock bus to a first voltage level while the clock signal transmission means is not transmitting a clock signal on the clock bus and the clock signal receiving means is not receiving a clock signal on the clock bus; the circuit further including enabling means in communication with the voltage driving means, the enabling means for enabling the voltage driving means when the clock signal transmission means is not transmitting a clock signal on the clock bus and the clock signal receiving means is not receiving a clock signal on the clock bus and the
- · Cancel claim 28.
- Claims 29-31, change "claim 28" to -- claim 23 --.
- 2. The following is an examiner's statement of reasons for allowance: the claims are allowable because none of the prior art(s) cited, anticipate(s) or render(s) obvious a circuit of claim 1 with "a clock transmitter in communication with a clock bus ... a clock receiver in communication with the clock bus... a driver in communication with the clock bus, the driver to drive and maintain a voltage of the clock bus to a first voltage level... including enabling circuitry in communication with the driver, the enabling circuitry to enable the driver when... and the clock receiver is not receiving a clock signal on the clock bus..." in conjunction -- i.e., viewed

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as a whole — with each and every limitation of the claim; and a circuit of claim 23 with "a clock signal transmission means in communication with a clock bus ... a clock signal receiving means in communication with the clock bus... a voltage driving means in communication with the clock bus, the voltage driving means for driving and maintaining a voltage of the clock bus to a first voltage level... including enabling means in communication with the voltage driving means, the enabling means for enabling the voltage driving means when... and the clock signal receiving means is not receiving a clock signal on the clock bus..." in conjunction — i.e., viewed as a whole — with each and every limitation of the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TSE CHEN whose telephone number is (571)272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tse Chen/ Primary Examiner, Art Unit 2116 June 17, 2009